In The Claims:

Cancel claims 16 and 38-40, and amend claims 15, 36 and 37 as follows:

Claim 15 (Currently amended)

15. A method for ~~the~~ identification of unknown particles contained in a fluid comprising:

a) providing a source of radiation and at least one detection means to detect said radiation located in a predetermined position relative to the radiation source, positioned to investigate a fluid'

b) interrogating said fluid with said source of radiation;

c) measuring the radiation scattered by an unknown particle in the fluid at said at least one detection means;

d) comparing the results obtained in step (c) with standard results previously obtained from a previously identified particle, wherein said standard results are obtained by

i) generating a radiation scattering pattern capable of uniquely identifying said previously identified particle by subjecting measurements of the radiation scattered by said previously identified particle in a fluid to an algorithm which enhances the separation of data generated from said measurements from data generated from measurements of distinct particles, and

ii) subjecting the data obtained from said algorithm to a mathematical technique that eliminates the data generated from a selected, previously identified particle unless the selected, previously identified particle is of the same type as the N particles whose generated data is most similar to the selected, previously identified particle's data, where N is a whole number greater than 0; and

e) identifying said unknown particle based upon the comparison of step (d).

Claim 36 (Currently amended)

36. A method for ~~the~~ identification of unknown particles contained in a fluid comprising:

a) providing a source of radiation and at least one detection means to detect said radiation located in a predetermined position relative to the radiation source, and positioned to investigate a fluid;

b) interrogating said fluid with said source of radiation;

c) measuring the radiation scattered by an unknown particle in the fluid at said at least one detection means;

d) comparing the results obtained in step (c) with standard results previously obtained from a previously identified particle, wherein said standard results are obtained by generating a radiation scattering pattern capable of uniquely identifying said previously identified article by subjecting measurements of the radiation scattered by said previously identified particle in a fluid to an algorithm which enhances the separation of data generated from said measurements from data generated from measurements of distinct particles, and to a mathematical technique that eliminates data generated from a selected, previously identified particle unless the selected, previously identified particle is of the same type as the N particles whose generated data is most similar to the selected, previously identified particle's data, where N is a whole number greater than 0.

e) identifying said unknown particle based upon the comparison of step (d).

Claim 37 (Currently amended)

37. Apparatus for ~~the~~ identification of unknown particles contained in a fluid to be analyzed which includes a source of radiation for generating a radiation beam and at least one detection means having a plurality of separate detectors to detect said radiation located in a predetermined position relative to the radiation source, such that a particle intersecting the radiation beam will scatter radiation detectable by the detectors,

and means for measuring the radiation scattered by an unknown particle in the fluid by said detection means, the improvement comprising means for comparing the results obtained by said measurement step with standard results previously obtained from a previously identified particle, wherein said standard results are obtained by generating a radiation scattering pattern capable of uniquely identifying said previously identified particle by subjecting measurements of the radiation scattered by said previously identified particle in a fluid to an algorithm which enhances the separation of data generated from said measurements from data generated from measurements of distinct particles, by further subjecting the data obtained from said algorithm to a mathematical technique that further enhances the separation of data generated from said measurements from data generated from said measurements of distinct particles, wherein said mathematical technique eliminates the data generated from a selected, previously identified particle unless the selected, previously identified article is of the same type as the N particles whose generated data is most similar to the selected, previously identified particle's data, where N is a whole number greater than 0, and identifying said unknown particle based upon the comparison step.